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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,147

08/31/2005

Yasumori Hino

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EXAMINER

DINH, TAN X

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,147	<b>Applicant(s)</b> HINO ET AL.	
	<b>Examiner</b> TAN X. DINH	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1) This application is a **371** of **PCT/JP03/12133**, filed on **9/24/2003**.

Receipt is acknowledged of papers submitted under **35 U.S.C. 119(a)-(d) or (f)**. The certified copy of the priority documents have been received in this **National Stage Application** from the International Bureau (**PCT Rule 17.2(a)**).

The foreign document identifies as:

**JAPAN 2002-277257**, filed on **9/24/2002**.

2) The amendment/preliminary amendment filed **3/24/2005** is acknowledged.

3) The **I.D.S** filed **3/24/2005, 1/23/2007** and **6/20/2007** have been considered by the Examiner. However, the Japan and/or foreign document(s), if they have not been written in English, are considered to the extent that could be understood from the English Abstract and the drawings.

Form **PTO-1449** or **PTO/SB/08** is(are) attached herein.

4) The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested:

**OPTICAL RECORDING MEDIUM HAVING DIFFERENT REFLECTANCE RATIO  
BETWEEN WRITE-ONCE AREA AND DATA AREA.**

5) Claims *8,9,17-19 and 23* are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The features as claimed in claims *8 and 9*, such as “ address of the write-once area is recorded by a wobble modulation of a groove, and a recording pit in the write-once area is recorded in synchronization with a position where the wobble amount of the groove is maximum/minimum ” cannot be found in the disclosure. Without these important teachings one of ordinary skill in the optical recording art cannot practicing the invention.

The same rejection is repeated for claims 17-19 and 23.

6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

7) (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United

States and was published under Article 21(2) of such treaty in the English language.

8) Claims *1-3 and 5-12* are rejected under 35 U.S.C. 102(e) as being anticipated by **IRIE et al ( 7,061,850 )**.

IRIE et al discloses optical recording medium having a data recording area in which data can be rewritten and a write-once area ( Fig.3, write-once area 32 with BCA area 33 and data area 31 ) in which data can be written only once and not be erased as claimed in claim 1, wherein:

in the data recording area, a reflectance ratio of a part where the data is recorded is lower than a reflectance ratio in a part where the data is not recorded ( column 7, lines 60-65 ); and

a reflectance ratio of a recording pit formed with irreversible change in the write-once area is higher than a reflectance ratio in the part where the data is not recorded in the write-once area ( column 7, lines 35-50. In this case, the write-once area (BCA area) can be at amorphous state or crystal state and at both states the reflectance ratio of a recording pit is always higher unrecorded area ).

As to claim 2, IRIE et al shows the a medium specific ID which is specific to an optical recording medium is recorded in the write-once area ( Fig.4, steps 42a-43c. see also column 10, lines 20-52 ).

As to claim 3, IRIE et al shows recording layer and a reflection layer which is arranged farther from a plane of incidence of a light than the recording layer, wherein the data is recorded in the write-once area by reduction of a thickness of a recording film due to deformation of the recording film ( Fig.2, recording layer 23 and reflecting layer 25 ).

As to claim 5, IRIE et al shows recording pit of the write-once area is formed by irradiating a laser beam modulated in a multi-pulse modulation ( see figure 11 (1) and figure 14 ).

As to claim 6, IRIE et al shows the write-once area and the data recording area have the same sector structures, and a start position of recording the data in the write-once area coincides with a start position of the sector ( in optical disc (CD, CD-R, CD-RW, DVD, DVD-R, DVD-RW, etc., ) the lead-in area and data area are always in the same sector ).

As to claim 7, IRIE et al shows a recording layer of a sector just before a sector to be recorded with the data in the write-once area is initialized to a crystallization state ( column 7, lines 35-51 ).

The features of claims 8 and 9 are inherent in IRIE et al's optical disc since they have the same structures.

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As to claim 10, IRIE et al shows the medium specific ID is encrypted with a public key which is generated from information related to the position where the medium specific ID is recorded and a private key ( figures 23 and 24. See also column 23, line 10 to column 25, line 2 ).

As to claim 11, IRIE et al shows a lead-in area for storing predetermined control information, the lead-in area storing determination information indicating if the optical recording medium has the medium specific ID ( Fig.21, control data area ).

As to claim 12, IRIE et al shows an area for storing information of a key set used for revoking, the write-once area, a lead-in area for storing predetermined control information, and the data recording area are formed in this order from an inner periphery of the optical recording medium ( Fig.21, areas 732, 729, 730 ).

9) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10) This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11) Claims 4 and 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over IRIE et al ( 7,061,850 ) and SHOJI et al ( 7,170,841 ).

IRIE et al discloses an apparatus for recording data on an optical recording medium having a data recording area in which data can be rewritten and a write-once area in which data can be written only once and not be erased, as claimed in claims 4 and 13, comprises an optical head operable to irradiate a laser beam to the optical recording medium to record the data ( Fig.1, optical pick-up 4 ), a laser driver operable to control an operation of recording the data by the optical head and a controller operable to control an operation of the laser driver ( Fig.1, laser controller 5 ), *except to specifically show that* the laser beam having heat



amount in a range from twice to four times heat amount necessary for recording the rewritable data in the data recording area is irradiated to the write-once area to record the data. It would have been obvious to someone within the level of skill in the art at the time of the invention was made to use a laser beam having heat amount in a range from twice to four times heat amount necessary for recording the rewritable data in the data recording area is irradiated to the write-once area to record the data in IRIE et al's optical disc for recording write-once data as claimed, the reasons are as follows:

(i) The feature of using high power level for recording write-once data (BCA data) is old and widely used in the optical recording art as admitted by applicant in the specification, page 3 and figure 25 and (ii) SHOJI et al in column 12, lines 56-67 teaches that recording of information into BCA requires irradiation with laser having a power much higher than a power required when performing recording on a recordable area. Therefore, anyone of ordinary skill in the art at the time of the invention was made would have been motivated to use a laser power of twice or four times the normal recording power in IRIE et al's optical disc for recording write-once data (BCA data) as claimed.

Claim 14 is rejected with the same reasons set forth in claim 2 above.

Claim 15 is rejected with the same reasons set forth in claim 5 above.

Claim 16 is rejected with the same reasons set forth in claim 3 above.

The features of claims 17-19 are inherent in IRIE et al's optical disc since they have the same structures and/or operations.

Claims 20-22 are rejected with the same reasons set forth in claim 10 above.

As to claim 23, it would have been obvious to read the write-once data at lower speed than the information in data area since the rotation speed of the optical disc can be adjusted at any desirable speed during recording or reading information data.

12) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant is reminded that in amending in response to a rejection of claims ( if the rejection involves with any applicable arts ), the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must also show how the amendments avoid such references and objections. See 37 CFR § 1.111(c).

Form **PTO-892** is attached herein.

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to **TAN Xuan DINH** whose telephone number is **571-272-7586**. The examiner can normally be reached on **MONDAY-FRIDAY** from **8:30AM** to **5:30PM**.

The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the **Patent Application Information Retrieval (PAIR)** system. Status information for published applications may be obtained from either **Private PAIR** or **Public PAIR**. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197** (toll-free).

/TAN Xuan DINH/  
Primary Examiner, Art Unit 2627  
May 21, 2008